
Sequence Listing was accepted.

If you need help call the Patent Electronic Business Center at (866) 217-9197 (toll free).

Reviewer: Anne Corrigan

Timestamp: Wed Oct 31 11:13:22 EDT 2007

Validated By CRFValidator v 1.0.3

Application No: 10031938 Version No: 6.0

Input Set:

Output Set:

Started: 2007-10-16 14:08:51.124

Finished: 2007-10-16 14:08:51.395

Elapsed: 0 hr(s) 0 min(s) 0 sec(s) 271 ms

Total Warnings: 0

Total Errors: 0

No. of SeqIDs Defined: 4

Actual SeqID Count: 4

SEQUENCE LISTING

```
<110> KAVERI, SRINIVAS
     LACROIX-DESMAZES, SEBASTIEN
      KAZATCHKINE, MICHEL
<120> CATALYTIC ANTI-FACTOR VIII ALLO-ANTIBODIES
<130> TJK-209
<140> 10031938
<141> 2002-07-22
<150> PCT/EP00/06870
<151> 2000-07-18
<150> EP 99401841.4
<151> 1999-07-21
<160> 4
<170> PatentIn Ver. 3.3
<210> 1
<211> 7
<212> PRT
<213> Homo sapiens
<400> 1
Ser Val Ala Lys Lys His Pro
 1
<210> 2
<211> 7
<212> PRT
<213> Homo sapiens
<400> 2
Asp Glu Asp Glu Asn Gln Ser
 1
<210> 3
<211> 7
<212> PRT
<213> Homo sapiens
<400> 3
Asp Gln Arg Gln Gly Ala Glu
 1
                  5
<210> 4
```

<211> 2332 <212> PRT <400> 4

Ala Thr Arg Arg Tyr Tyr Leu Gly Ala Val Glu Leu Ser Trp Asp Tyr 1 5 10 15

Met Gln Ser Asp Leu Gly Glu Leu Pro Val Asp Ala Arg Phe Pro Pro 20 25 30

Arg Val Pro Lys Ser Phe Pro Phe Asn Thr Ser Val Val Tyr Lys Lys
35 40 45

Thr Leu Phe Val Glu Phe Thr Asp His Leu Phe Asn Ile Ala Lys Pro 50 55 60

Arg Pro Pro Trp Met Gly Leu Leu Gly Pro Thr Ile Gln Ala Glu Val 65 70 75 80

Tyr Asp Thr Val Val Ile Thr Leu Lys Asn Met Ala Ser His Pro Val
85 90 95

Ser Leu His Ala Val Gly Val Ser Tyr Trp Lys Ala Ser Glu Gly Ala 100 105 110

Glu Tyr Asp Asp Gln Thr Ser Gln Arg Glu Lys Glu Asp Asp Lys Val 115 120 125

Phe Pro Gly Gly Ser His Thr Tyr Val Trp Gln Val Leu Lys Glu Asn 130 135 140

His Val Asp Leu Val Lys Asp Leu Asn Ser Gly Leu Ile Gly Ala Leu 165 170 175

Leu Val Cys Arg Glu Gly Ser Leu Ala Lys Glu Lys Thr Gln Thr Leu 180 185 190

His Lys Phe Ile Leu Leu Phe Ala Val Phe Asp Glu Gly Lys Ser Trp 195 200 205

His Ser Glu Thr Lys Asn Ser Leu Met Gln Asp Arg Asp Ala Ala Ser 210 215 220

Ala Arg Ala Trp Pro Lys Met His Thr Val Asn Gly Tyr Val Asn Arg 225 230 235 240

Ser Leu Pro Gly Leu Ile Gly Cys His Arg Lys Ser Val Tyr Trp His
245 250 255

Val Ile Gly Met Gly Thr Thr Pro Glu Val His Ser Ile Phe Leu Glu 260 265 270

Gly His Thr Phe Leu Val Arg Asn His Arg Gln Ala Ser Leu Glu Ile 275 280 285

| Ser Pro Ile 290 | Thr Phe | Leu Th | | Gln | Thr | Leu | Leu 300 | Met | Asp | Leu | Gly |
|--------------------|----------------|---------------|--------------|------------|------------|------------|------------|------------|------------|------------|------------|
| Gln Phe Leu 305 | Leu Phe | Cys Hi | s Ile | Ser | Ser | His 315 | Gln | His | Asp | Gly | Met 320 |
| Glu Ala Tyr | Val Lys 325 | Val As | p Ser | Cys | Pro 330 | Glu | Glu | Pro | Gln | Leu 335 | Arg |
| Met Lys Asn | Asn Glu 340 | Glu Al | a Glu | Asp 345 | Tyr | Asp | Asp | Asp | Leu 350 | Thr | Asp |
| Ser Glu Met 355 | Asp Val | Val Aı | g Phe 360 | Asp | Asp | Asp | Asn | Ser 365 | Pro | Ser | Phe |
| Ile Gln Ile 370 | Arg Ser | Val Al | _ | Lys | His | Pro | Lys 380 | Thr | Trp | Val | His |
| Tyr Ile Ala 385 | Ala Glu | Glu G] 390 | u Asp | Trp | Asp | Tyr 395 | Ala | Pro | Leu | Val | Leu 400 |
| Ala Pro Asp | Asp Arg 405 | Ser Ty | r Lys | Ser | Gln 410 | Tyr | Leu | Asn | Asn | Gly 415 | Pro |
| Gln Arg Ile | Gly Arg 420 | Lys Ty | r Lys | Lys 425 | Val | Arg | Phe | Met | Ala 430 | Tyr | Thr |
| Asp Glu Thr 435 | Phe Lys | Thr Aı | g Glu 440 | Ala | Ile | Gln | His | Glu 445 | Ser | Gly | Ile |
| Leu Gly Pro 450 | Leu Leu | Tyr Gl | | Val | Gly | Asp | Thr 460 | Leu | Leu | Ile | Ile |
| Phe Lys Asn 465 | Gln Ala | Ser An | g Pro | Tyr | Asn | Ile 475 | Tyr | Pro | His | Gly | Ile 480 |
| Thr Asp Val | Arg Pro 485 | Leu Ty | r Ser | Arg | Arg 490 | Leu | Pro | Lys | Gly | Val 495 | Lys |
| His Leu Lys | Asp Phe | Pro Il | e Leu | Pro 505 | Gly | Glu | Ile | Phe | Lys 510 | Tyr | Lys |
| Trp Thr Val | Thr Val | Glu As | p Gly 520 | Pro | Thr | Lys | Ser | Asp 525 | Pro | Arg | Cys |
| Leu Thr Arg 530 | Tyr Tyr | Ser Se | | Val | Asn | Met | Glu 540 | Arg | Asp | Leu | Ala |
| Ser Gly Leu 545 | Ile Gly | Pro Le | u Leu | Ile | Суз | Tyr 555 | Lys | Glu | Ser | Val | Asp 560 |
| Gln Arg Gly | Asn Gln 565 | Ile Me | t Ser | Asp | Lys 570 | Arg | Asn | Val | Ile | Leu 575 | Phe |
| Ser Val Phe | Asp Glu 580 | Asn Aı | g Ser | Trp 585 | Tyr | Leu | Thr | Glu | Asn 590 | Ile | Gln |

| Arg | Phe | Leu 595 | Pro | Asn | Pro | Ala | Gly 600 | Val | Gln | Leu | Glu | Asp 605 | Pro | Glu | Phe |
|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| Gln | Ala 610 | Ser | Asn | Ile | Met | His 615 | Ser | Ile | Asn | Gly | Tyr 620 | Val | Phe | Asp | Ser |
| Leu 625 | Gln | Leu | Ser | Val | Суs 630 | Leu | His | Glu | Val | Ala 635 | Tyr | Trp | Tyr | Ile | Leu 640 |
| Ser | Ile | Gly | Ala | Gln 645 | Thr | Asp | Phe | Leu | Ser 650 | Val | Phe | Phe | Ser | Gly 655 | Tyr |
| Thr | Phe | Lys | His 660 | Lys | Met | Val | Tyr | Glu 665 | Asp | Thr | Leu | Thr | Leu 670 | Phe | Pro |
| Phe | Ser | Gly 675 | Glu | Thr | Val | Phe | Met 680 | Ser | Met | Glu | Asn | Pro 685 | Gly | Leu | Trp |
| Ile | Leu 690 | Gly | Суз | His | Asn | Ser 695 | Asp | Phe | Arg | Asn | Arg 700 | Gly | Met | Thr | Ala |
| Leu 705 | Leu | Lys | Val | Ser | Ser 710 | Суз | Asp | Lys | Asn | Thr 715 | Gly | Asp | Tyr | Tyr | Glu 720 |
| Asp | Ser | Tyr | Glu | Asp 725 | Ile | Ser | Ala | Tyr | Leu 730 | Leu | Ser | Lys | Asn | Asn 735 | Ala |
| Ile | Glu | Pro | Arg 740 | Ser | Phe | Ser | Gln | Asn 745 | Ser | Arg | His | Phe | Ser 750 | Thr | Arg |
| Gln | Lys | Gln 755 | Phe | Asn | Ala | Thr | Thr 760 | Ile | Pro | Glu | Asn | Asp 765 | Ile | Glu | Lys |
| Thr | Asp 770 | Pro | Trp | Phe | Ala | His 775 | Arg | Thr | Pro | Met | Pro 780 | Lys | Ile | Gln | Asn |
| Val 785 | Ser | Ser | Ser | Asp | Leu 790 | Leu | Met | Leu | Leu | Arg 795 | Gln | Ser | Pro | Thr | Pro 800 |
| His | Gly | Leu | Ser | Leu 805 | Ser | Asp | Leu | Gln | Glu 810 | Ala | Lys | Tyr | Glu | Thr 815 | Phe |
| Ser | Asp | Asp | Pro 820 | Ser | Pro | Gly | Ala | Ile 825 | Asp | Ser | Asn | Asn | Ser 830 | Leu | Ser |
| Glu | Met | Thr 835 | His | Phe | Arg | Pro | Gln 840 | Leu | His | His | Ser | Gly 845 | Asp | Met | Val |
| Phe | Thr 850 | Pro | Glu | Ser | Gly | Leu 855 | Gln | Leu | Arg | Leu | Asn 860 | Glu | Lys | Leu | Gly |
| Thr 865 | Thr | Ala | Ala | Thr | Glu 870 | Leu | Lys | Lys | Leu | Asp 875 | Phe | Lys | Val | Ser | Ser 880 |
| Thr | Ser | Asn | Asn | Leu 885 | Ile | Ser | Thr | Ile | Pro 890 | Ser | Asp | Asn | Leu | Ala 895 | Ala |

| Gly | Thr | Asp | Asn 900 | Thr | Ser | Ser | Leu | Gly 905 | Pro | Pro | Ser | Met | Pro 910 | Val | His |
|-----|-----|------------|------------|-----|-----|-----|------------|------------|-----|-----|-----|------------|------------|-----|-----|
| Tyr | Asp | Ser 915 | Gln | Leu | Asp | Thr | Thr 920 | Leu | Phe | Gly | Lys | Lys 925 | Ser | Ser | Pro |

- Leu Thr Glu Ser Gly Gly Pro Leu Ser Leu Ser Glu Glu Asn Asn Asp 930 935 940
- Ser Lys Leu Leu Glu Ser Gly Leu Met Asn Ser Gln Glu Ser Ser Trp 945 950 955 960
- Gly Lys Asn Val Ser Ser Thr Glu Ser Gly Arg Leu Phe Lys Gly Lys 965 970 975
- Arg Ala His Gly Pro Ala Leu Leu Thr Lys Asp Asn Ala Leu Phe Lys 980 985 990
- Val Ser Ile Ser Leu Leu Lys Thr Asn Lys Thr Ser Asn Asn Ser Ala 995 1000 1005
- Thr Asn Arg Lys Thr His Ile Asp Gly Pro Ser Leu Leu Ile Glu Asn 1010 1015 1020
- Ser Pro Ser Val Trp Gln Asn Ile Leu Glu Ser Asp Thr Glu Phe Lys 1025 1030 1035 1040
- Lys Val Thr Pro Leu Ile His Asp Arg Met Leu Met Asp Lys Asn Ala 1045 1050 1055
- Thr Ala Leu Arg Leu Asn His Met Ser Asn Lys Thr Thr Ser Ser Lys
 1060 1065 1070
- Asn Met Glu Met Val Gln Gln Lys Lys Glu Gly Pro Ile Pro Pro Asp 1075 1080 1085
- Ala Gln Asn Pro Asp Met Ser Phe Phe Lys Met Leu Phe Leu Pro Glu 1090 1095 1100
- Ser Ala Arg Trp Ile Gln Arg Thr His Gly Lys Asn Ser Leu Asn Ser 1105 1110 1115 1120
- Gly Gln Gly Pro Ser Pro Lys Gln Leu Val Ser Leu Gly Pro Glu Lys $1125 \hspace{1.5cm} 1130 \hspace{1.5cm} 1135$
- Ser Val Glu Gly Gln Asn Phe Leu Ser Glu Lys Asn Lys Val Val 1140 1145 1150
- Gly Lys Gly Glu Phe Thr Lys Asp Val Gly Leu Lys Glu Met Val Phe 1155 1160 1165
- Pro Ser Ser Arg Asn Leu Phe Leu Thr Asn Leu Asp Asn Leu His Glu 1170 1175 1180

- Lys Glu Thr Leu Ile Gln Glu Asn Val Val Leu Pro Gln Ile His Thr 1205 1210 1215
- Val Thr Gly Thr Lys Asn Phe Met Lys Asn Leu Phe Leu Leu Ser Thr
 1220 1225 1230
- Arg Gln Asn Val Glu Gly Ser Tyr Asp Gly Ala Tyr Ala Pro Val Leu 1235 1240 1245
- Gln Asp Phe Arg Ser Leu Asn Asp Ser Thr Asn Arg Thr Lys Lys His 1250 1255 1260
- Thr Ala His Phe Ser Lys Lys Gly Glu Glu Glu Asn Leu Glu Gly Leu 1265 1270 1275 1280
- Gly Asn Gln Thr Lys Gln Ile Val Glu Lys Tyr Ala Cys Thr Thr Arg 1285 1290 1295
- Ile Ser Pro Asn Thr Ser Gln Gln Asn Phe Val Thr Gln Arg Ser Lys 1300 1305 1310
- Arg Ala Leu Lys Gln Phe Arg Leu Pro Leu Glu Glu Thr Glu Leu Glu
 1315 1320 1325
- Lys Arg Ile Ile Val Asp Asp Thr Ser Thr Gln Trp Ser Lys Asn Met 1330 1335 1340
- Lys His Leu Thr Pro Ser Thr Leu Thr Gln Ile Asp Tyr Asn Glu Lys 1345 1350 1355 1360
- Glu Lys Gly Ala Ile Thr Gln Ser Pro Leu Ser Asp Cys Leu Thr Arg 1365 1370 1375
- Ser His Ser Ile Pro Gln Ala Asn Arg Ser Pro Leu Pro Ile Ala Lys 1380 1385 1390
- Val Ser Ser Phe Pro Ser Ile Arg Pro Ile Tyr Leu Thr Arg Val Leu 1395 1400 1405
- Phe Gln Asp Asn Ser Ser His Leu Pro Ala Ala Ser Tyr Arg Lys Lys 1410 1415 1420
- Asp Ser Gly Val Gln Glu Ser Ser His Phe Leu Gln Gly Ala Lys Lys 1425 1430 1435 1440
- Asn Asn Leu Ser Leu Ala Ile Leu Thr Leu Glu Met Thr Gly Asp Gln \$1445\$ \$1450\$ \$1455\$
- Arg Glu Val Gly Ser Leu Gly Thr Ser Ala Thr Asn Ser Val Thr Tyr 1460 1465 1470
- Lys Lys Val Glu Asn Thr Val Leu Pro Lys Pro Asp Leu Pro Lys Thr 1475 1480 1485
- Ser Gly Lys Val Glu Leu Leu Pro Lys Val His Ile Tyr Gln Lys Asp 1490 1495 1500

| Leu | Phe | Pro | Thr | Glu | Thr | Ser | Asn | Gly | Ser | Pro | Gly | His | Leu | Asp | Let |
|------|-----|-----|-----|-----|------|-----|-----|-----|-----|------|-----|-----|-----|-----|------|
| 1505 | 5 | | | 1 | L510 | | | | 1 | L515 | | | | 1 | 1520 |

- Val Glu Gly Ser Leu Leu Gln Gly Thr Glu Gly Ala Ile Lys Trp Asn 1525 1530 1535
- Glu Ala Asn Arg Pro Gly Lys Val Pro Phe Leu Arg Val Ala Thr Glu 1540 1545 1550
- Ser Ser Ala Lys Thr Pro Ser Lys Leu Leu Asp Pro Leu Ala Trp Asp 1555 1560 1565
- Asn His Tyr Gly Thr Gln Ile Pro Lys Glu Glu Trp Lys Ser Gln Glu 1570 1575 1580
- Lys Ser Pro Glu Lys Thr Ala Phe Lys Lys Lys Asp Thr Ile Leu Ser 1585 1590 1595 1600
- Leu Asn Ala Cys Glu Ser Asn His Ala Ile Ala Ala Ile Asn Glu Gly $1605 \hspace{1.5cm} 1610 \hspace{1.5cm} 1615$
- Gln Asn Lys Pro Glu Ile Glu Val Thr Trp Ala Lys Gln Gly Arg Thr $1620 \hspace{1.5cm} 1625 \hspace{1.5cm} 1630$
- Glu Arg Leu Cys Ser Gln Asn Pro Pro Val Leu Lys Arg His Gln Arg 1635 1640 1645
- Glu Ile Thr Arg Thr Thr Leu Gln Ser Asp Gln Glu Glu Ile Asp Tyr 1650 1655 1660
- Asp Asp Thr Ile Ser Val Glu Met Lys Lys Glu Asp Phe Asp Ile Tyr 1665 1670 1675 1680
- Asp Glu Asp Glu Asn Gln Ser Pro Arg Ser Phe Gln Lys Lys Thr Arg 1685 1690 1695
- His Tyr Phe Ile Ala Ala Val Glu Arg Leu Trp Asp Tyr Gly Met Ser 1700 1705 1710
- Ser Ser Pro His Val Leu Arg Asn Arg Ala Gln Ser Gly Ser Val Pro 1715 1720 1725
- Gln Phe Lys Lys Val Val Phe Gln Glu Phe Thr Asp Gly Ser Phe Thr 1730 1735 1740
- Gln Pro Leu Tyr Arg Gly Glu Leu Asn Glu His Leu Gly Leu Leu Gly 1745 1750 1755 1760
- Pro Tyr Ile Arg Ala Glu Val Glu Asp Asn Ile Met Val Thr Phe Arg 1765 1770 1775
- Asn Gln Ala Ser Arg Pro Tyr Ser Phe Tyr Ser Ser Leu Ile Ser Tyr 1780 1785 1790
- Glu Glu Asp Gln Arg Gln Gly Ala Glu Pro Arg Lys Asn Phe Val Lys 1795 1800 1805

- Pro Asn Glu Thr Lys Thr Tyr Phe Trp Lys Val Gln His His Met Ala 1810 1815 1820
- Pro Thr Lys Asp Glu Phe Asp Cys Lys Ala Trp Ala Tyr Phe Ser Asp 1825 1830 1835 1840
- Val Asp Leu Glu Lys Asp Val His Ser Gly Leu Ile Gly Pro Leu Leu 1845 1850 1855
- Val Cys His Thr Asn Thr Leu Asn Pro Ala His Gly Arg Gln Val Thr 1860 1865 1870
- Val Gln Glu Phe Ala Leu Phe Phe Thr Ile Phe Asp Glu Thr Lys Ser 1875 1880 1885
- Trp Tyr Phe Thr Glu Asn Met Glu Arg Asn Cys Arg Ala Pro Cys Asn 1890 1895 1900
- Ile Gln Met Glu Asp Pro Thr Phe Lys Glu Asn Tyr Arg Phe His Ala 1905 1910 1915 1920
- Ile Asn Gly Tyr Ile Met Asp Thr Leu Pro Gly Leu Val Met Ala Gln 1925 1930 1935
- Asp Gln Arg Ile Arg Trp Tyr Leu Leu Ser Met Gly Ser Asn Glu Asn 1940 1945 1950
- Ile His Ser Ile His Phe Ser Gly His Val Phe Thr Val Arg Lys Lys 1955 1960 1965
- Glu Glu Tyr Lys Met Ala Leu Tyr Asn Leu Tyr Pro Gly Val Phe Glu 1970 1975 1980
- Thr Val Glu Met Leu Pro Ser Lys Ala Gly Ile Trp Arg Val Glu Cys 1985 1990 1995 2000
- Leu Ile Gly Glu His Leu His Ala Gly Met Ser Thr Leu Phe Leu Val $2005 \hspace{1.5cm} 2010$